### PERFORMANCE AND EXPENDITURE REPORT

### **STATE FISCAL YEAR 2011**

### ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

## PLANNING AND RESEARCH DIVISION FHWA PROJECT SPR-2000(31)



September 2011

In Cooperation with the Federal Highway Administration U.S. Department of Transportation

# PERFORMANCE AND EXPENDITURE REPORT Federal-aid State Planning and Research (SPR) Funds FHWA Project SPR 2000(31) Part I – Planning State Fiscal Year 2011

September 2011

Prepared by the
Planning and Research Division
Arkansas State Highway and Transportation Department

In Cooperation with the

FEDERAL HIGHWAY ADMINISTRATION U.S. DEPARTMENT OF TRANSPORTATION

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### INTRODUCTION

This report has been developed in compliance with 23 CFR 420.117, Program Monitoring and Reporting, which is in accordance with 49 CFR 18.40. It records the use of Federal-aid State Planning and Research (SPR) Part I – Planning funds during State Fiscal Year 2011. Activities using SPR Part II – Research funds during this period will be documented in reports developed for individual projects. These reports will be submitted separately.

Presented in this document are accomplishments listed by job number, the approved budget with revisions, and a comparison of actual costs expended to the amounts budgeted for planning activities. Accomplishments are also included for projects that have oversight provided within the Planning and Research Division but that are funded with other Federal-aid funds. Many of the projects included in this report are ongoing and will continue into Fiscal Year 2012.

Individual Performance and Expenditure Reports are developed and submitted separately by the Metropolitan Planning Organizations (MPOs). These reports present accomplishments made by each of the State's eight MPOs for Fiscal Year 2011.

# FEDERAL-AID STATE PLANNING AND RESEARCH (SPR) FUNDS PART I – PLANNING

### FEDERAL-AID STATE PLANNING AND RESEARCH (SPR) FUNDS PART I – PLANNING

Activities for Jobs 400 through 432 and Job 467 represent in-house transportation planning projects. Expenditures which exceed apportioned Federal-aid funds and the required State match are paid using 100 percent State funds. During Fiscal Year 2011, there were adequate SPR funds available for project activities.

SPR funds were obligated for four planning projects conducted by consultants (Job Numbers 001968 through 001971). State funds provided matching for these projects.

Accomplishments during State Fiscal Year 2011 for SPR Part I – Planning funded activities follow. The Approved Budget with Revisions and the Final Performance and Expenditure Report tables are located at the end of the report.

### 400 - ADMINISTRATION AND CONTROL

Administrative guidance and controls were accomplished in accordance with the goals and objectives set forth for the Division. The necessary purchasing, storing, and distribution of supplies continued. An accurate inventory was maintained for the Division. Federal Registers were reviewed for information affecting Department operations, planning, and the administration of funds. The Fiscal Year 2012 SPR Work Program and Cost Estimate document and the Fiscal Year 2010 Performance and Expenditure Report were developed in compliance with Federal requirements.

#### **401 - FIELD OPERATIONS**

All scheduled statewide and urbanized area coverage counts, special counts, and machine vehicle classification counts were completed. A total of 1,009 classification counts were collected by the Department in Fiscal Year 2011. Maintenance, repair, and calibration of monitoring equipment were performed as required. Pavement deflections were measured with the falling weight deflectometer (FWD) to determine pavement composition and characteristics. Pavement friction data was collected using the pavement friction tester.

### **402 - MAPPING AND GRAPHICS**

- State Highway Map (Tourist Map) updated and 1,000,000 copies printed.
- Changes to the State Highway System as follows:
  - o Hwy. 7, Section 7 Spur Mileage changed based on new straightline (Union Co.)
  - o Hwy. 8, Section 5 Mileage changed based on new straightline (Clark Co.)
  - o Hwy. 9, Section 11 Mileage changed based on new straightline. (Stone Co.)
  - o Hwy. 10, Section 0 Spur Mileage changed based on new straightline (Sebastian Co.)
  - o Hwy. 10, Section 1 Mileage changed based on new straightline (Sebastian Co.)
  - o Hwy. 11, Section 3 Mileage changed based on new straightline (Lincoln Co.)

- Hwy. 12, Section 3 Portion of 62 Section 2B redesignated as a portion of Hwy. 12,
   Section 3 mileage changed based on new straightline (Benton Co.)
- o Hwy. 14, Section 12 Mileage changed based on new straightline (Jackson Co.)
- Hwy. 17, Section 1 Mileage changed based on new straightline (Jackson Co.)
- O Hwy. 18, Section 1 Mileage changed based on new straightline (Jackson Co.)
- Hwy. 19, Section 5 Mileage changed based on new straightline. (Nevada Co.)
- o Hwy. 19, Section 7 Mileage changed based on new straightline (Pike Co.)
- o Hwy. 23, Section 8 Mileage changed based on new straightline (Madison Co.)
- o Hwy. 28, Section 3 Mileage changed based on new straightline (Yell Co.)
- O Hwy. 32, Section 1 Mileage changed based on new straightline (Little River Co.)
- O Hwy. 35, Section 1 Portion of road removed and added (Saline Co.)
- o Hwy. 35, Section 4 Mileage changed based on new straightline (Cleveland Co.)
- Interstate 40, Sections 31 and 32 Mileage changed based on new straightline (Conway and Faulkner Co.)
- o Hwy. 45, Section 3 Mileage changed based on new straightline (Washington Co.)
- o Hwy. 53, Section 0 Mileage changed based on new straightline (Clark Co.)
- o Hwy. 53, Section 2 Mileage changed based on new straightline. (Nevada Co.)
- O Hwy. 54, Section 7 Mileage changed based on new straightline (Cleveland Co.)
- o Hwy. 58, Section 0 Mileage changed based on new straightline. (Izard Co.)
- o Hwy. 62, Section 2B Removed from the State Highway System (Benton Co.)
- Hwy. 63, Section 15 Mileage changed based on new straightline & exception over portion (Cleveland Co.)
- o Hwy. 64, Section 2C Mileage changed based on new straightline (Crawford Co.)
- O Hwy. 64, Section 7 Mileage changed based on new straightline (Conway Co.)
- Hwy. 65, Section 16 Hwy. re-aligned (Grady Bypass) and log miles changed (Lincoln Co.)
- o Hwy. 65, Section 21 Mileage changed based on new straightline (Chicot Co.)
- O Hwy. 67, Section 10 Mileage changed based on new straightline (Pulaski Co.)
- O Hwy. 69, Section 2 Spur Mileage changed based on new straightline (Independence Co.)
- Hwy. 70, Section 2 Mileage changed based on new straightline (Sevier Co.)
- o Hwy. 70, Section 12 and 13 Mileage changed based on new straightline (Pulaski Co.)
- o Hwy. 72, Section 1 Mileage changed based on new straightline. (Benton Co.)
- o Hwy. 74, Section 0 Mileage changed based on new straightline (Washington Co.)
- Hwy. 77, Section 5 Mileage changed based on new straightline (Crittenden Co.)
- O Hwy. 79, Section 7 Mileage changed based on new straightline (Cleveland Co.)
- o Hwy. 82, Section 11 Mileage and Alignment changed (Chicot Co.)
- o Hwy. 84, Section 3 Mileage changed based on new straightline (Pike Co.)
- Hwy. 94, Section 1 Portion deleted from the State Highway System and mileage changed (Benton Co.)
- o Hwy. 96, Section 2 Mileage changed based on new straightline (Sebastian Co.)
- o Hwy. 97, Section 1 Mileage changed based on new straightline (Cleveland Co.)
- o Hwy. 98, Section 1 Mileage changed based on new straightline (Columbia Co.)
- o Hwy. 98, Section 2 Mileage changed based on new straightline (Columbia Co.)
- o Hwy. 112, Section 0 Mileage changed based on new straightline (Washington Co.)
- Hwy. 114, Section 0 Mileage changed based on new straightline & exception over portion (Cleveland Co.)

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o Hwy. 128, Section 4 – Mileage changed based on new straightline (Clark Co.)
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- O Hwy. 133, Section 5 Mileage changed based on new straightline (Cleveland Co.)
- o Hwy. 142, Section 1 Mileage changed based on new straightline (Chicot Co.)
- Hwy. 146, Section 5 Mileage changed based on new straightline.(Phillips Co.)
- O Hwy. 159, Section 2 Mileage changed based on new straightline (Chicot Co.)
- o Hwy. 159, Section 5 Mileage changed based on new straightline. (Desha Co.)
- o Hwy. 160, Section 7 Mileage changed based on new straightline. (Bradley Co.)
- o Hwy. 167, Section 3 Mileage changed based on new straightline (Calhoun Co.)
- o Hwy. 172, Section 0 Mileage changed based on new straightline (Union Co.)
- O Hwy. 172, Section 1 Mileage changed based on new straightline (Calhoun Co.)
- o Hwy. 183, Section 1 Portion of road removed and added (Saline Co.)
- o Hwy. 189, Section 1 Mileage changed based on new straightline (Cleveland Co.)
- O Hwy. 196, Section 1 Minute Order 2010-106 changed the road alignment and mileage changed based on new straightline (Miller Co.)
- o Hwy. 203, Section 2 Mileage changed based on new straightline (Calhoun Co.)
- o Hwy. 205, Section 4 Mileage changed based on new straightline (Calhoun Co.)
- o Hwy. 224, Section 1 Mileage changed based on new straightline (Jackson Co.)
- O Hwy. 255, Section 2 Mileage changed based on new straightline (Sebastian Co.)
- o Hwy. 265, Section 1 Mileage changed based on new straightline (Washington Co.)
- o Hwy. 267, Section 2 Added to the State Highway System (Jackson Co.)
- o Hwy. 270, Section 7B Mileage changed based on new straightline (Hot Spring Co.)
- o Hwy. 275, Section 1 Mileage changed based on new straightline (Union Co.)
- o Hwy. 275, Section 2 Mileage changed based on new straightline (Union Co.)
- O Hwy. 275, Section 3 Mileage changed based on new straightline (Bradley Co.)
- Hwy. 278, Section 3 Mileage changed based on new straightline (Howard Co.)
- Hwy. 282, Section 3 Portion redesignated and mileage changed based on new straightline (Crawford Co.)
- o Hwy. 282, Section 3 Spur Added to the State Highway System (Crawford Co.)
- o Hwy. 299, Section 1 Mileage changed based on new straightline (Nevada Co.)
- o Hwy. 303, Section 4 Mileage changed based on new straightline (Benton Co.)
- o Hwy. 317, Section 1 Mileage changed based on new straightline (Little River Co.)
- o Hwy. 317, Section 2 Mileage changed based on new straightline (Little River Co.)
- o Hwy. 326, Section 2 Mileage changed based on new straightline (Pope Co.)
- o Hwy. 332, Section 6 Mileage changed based on new straightline (Hempstead Co.)
- Hwy. 335, Section 1 Mileage changed based on new straightline (Union Co.)
- o Hwy. 335, Section 2 Mileage changed based on new straightline (Union Co.)
- o Hwy. 355, Section 0 Mileage changed based on new straightline (Howard Co.)
- o Hwy. 355, Section 3 Mileage changed based on new straightline (Hempstead Co.)
- o Hwy. 367, Section 21 Mileage changed based on new straightline (Jackson Co.)
- Hwy. 371, Section 6 Mileage changed based on new straightline (Columbia Co.)
- O Hwy. 378, Section 0 Mileage changed based on new straightline (Sebastian Co.)
- o Hwy. 384, Section 3 Mileage changed based on new straightline (Jackson Co.)
- Interstate 530, Sections 1-5 Mileage changed based on new straightline (Pulaski, Saline, Grant, and Jefferson Co.)

Each change to the State Highway System involves changing 10 individual maps and the State Highway System Control File to reflect the changes.

- Completed full county map updates on the following with orthorectified aerial photography:
  - o Union County July 2010
  - o Miller County July 2010
  - o Benton County July 2010
  - o Washington County July 2010
  - o Chicot County August 2010
  - o Lonoke County November 2010
  - Montgomery County January 2011
- Counties that were not fully updated required minor revisions in specific areas such as but not limited to:
  - o City Limits
  - o State Highway Revisions
  - Road Numbers
  - o Culture Updates (i.e., schools, churches, post offices, and police and fire stations, etc.)
  - o Public Land Boundaries (parks, wildlife management areas and military reservation boundaries)
  - o Railroads
- Completed full map updates with street indices on the following cities and municipal areas:

Almyra
 Cherry Valley
 Conway
 De Witt
 Helena – West Helena
 Helena – West Helena
 Hickory Ridge
 St. Charles
 Stuttgart
 Sunset

O DyerO MarionO West Memphis

o Gillett o Mulberry o Wynne

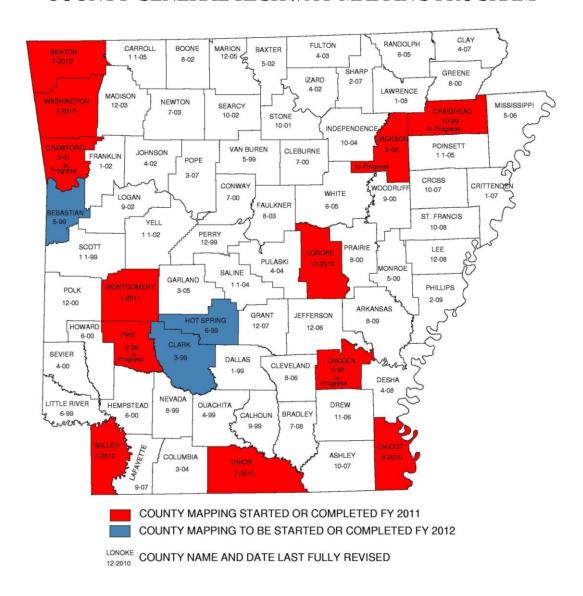
- Some cities (approximately 55) that were not fully updated and indexed required minor revisions in specific areas such as but not limited to:
  - o City Limits
  - State Highway Revisions
  - o Road Numbers
  - o Culture Updates (i.e., schools, churches, post offices, and police and fire stations, etc.)
- GPS was used to obtain new and relocated alignments for the State Highway System and needed county roads/city streets not present on the most recently available orthophotography.
- All revised and completed county and city maps were sent by mail to the respective officials for notification of new maps and to inquire about any changes or updates.
- GIS Data sets Created /Updated/Maintained:
  - o Public Lands Boundaries (Parks, Wildlife Management Areas, Military Reservations)
  - o Township/Range/Sections
  - o Linear Referencing System (LRS)-State Highway System

o Cities (Current and Archival)

### • Special Projects:

- Truck Parking Maps (Research)
- License Plate Study (Research)
- o Route Change Sketches (Technical Services)
- o Annual Daily Traffic Book (Technical Services)
- Weight Restriction Maps (Technical Services)
- o Interstate 40 Corridor Public Involvement Maps (Statewide Planning)
- o U.S. 67 Corridor Public Involvement Maps (Statewide Planning)
- o Eastern North-South Corridor Public Involvement Maps (Statewide Planning)
- o Figure Maps for Planning Studies (Statewide Planning)
- o GeoMedia and Microstation methodologies training/assistance
- Arkansas Highway Police District Map
- o Maintaining Geoworkspaces and create maps for Bridge Inventory (Bridge Division)
- o Highway Improvement Program (HIP) Map (Programs and Contracts)
- o Intranet and Internet updated with TIF image of updated county and city maps
- o Intranet updated with PDF image of updated county and city maps
- Provided with a paper print of all county and city maps produced by the Mapping and Graphics Section, for distribution by Map Sales Section.
- o Economic Impact Analysis for I-69 and I-49 (Including all States involved in both routes) (Administration)
- o I-69 SIU Map updates (Administration)
- Update database per weekly input of Gas and Oil Well Report by T-R-S from the Arkansas Democrat Gazette (Administration)
- o Fayetteville Shale Maps (Administration)
- o North Little Rock Ramp Acceleration Study Pulaski County Interstates (Administration)
- o Commemorative Route Database and Map (Administration)
- o Scenic Highway/Byway Database and Map (Administration)
- o Economic Impact Mapping Project for Four-Lane Improvements (Policy Analysis)

### COMPUTER CARTOGRAPHY COUNTY GENERAL HIGHWAY MAPPING PROGRAM



### **403 - DATA ANALYSIS**

All statewide coverage counts, special counts, turning movements, and machine vehicle classification counts were processed. Vehicle classification data from the permanent collection sites (ATR) were collected and analyzed. The Department continued collecting classification and weight data for the Long-Term Pavement Performance program. Seasonal and axle adjustment factors were calculated using the permanent count station data. Falling weight deflectometer (FWD) data was analyzed for all locations where data was collected. The statewide friction resistance-testing data was processed.

### SEASONAL ADJUSTMENT FACTORS

### Count Year 2011

The following factors combine both monthly and day-of -week adjustments. These adjustments are used to estimate average annual daily traffic (AADT) from a single raw traffic count. ATR data were used to compute these factors. These factors are used in conjunction with axle adjustment factors to adjust volume counts.

### **Rural Functional Classification**

	Interstate*	Freeways Expressways	Principal Arterial	Minor Arterial	Major Collector	Minor Collector	Local
	<u>01</u>	<u>02</u>	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>
Jan	1.13	1.07	1.11	1.08	1.07	1.07	1.07
Feb	1.09	1.01	1.04	1.04	1.05	1.05	1.05
Mar	1.02	0.99	1.00	1.00	1.02	1.02	1.02
Apr	1.01	0.98	0.98	0.98	1.00	1.00	1.00
May	0.99	0.98	0.97	0.98	0.98	0.98	0.98
Jun	0.97	0.99	0.98	0.97	0.97	0.97	0.97
Jul	0.93	0.99	0.98	1.00	0.99	0.99	0.99
Aug	0.93	0.98	1.01	1.00	1.00	1.00	1.00
Sep	0.96	1.00	1.02	1.01	1.00	1.00	1.00
Oct	1.00	1.00	1.01	0.99	0.98	0.98	0.98
Nov	1.03	1.00	1.02	0.98	0.99	0.99	0.99
Dec	1.03	1.02	1.05	1.01	1.00	1.00	1.00

### **Urban Functional Classification**

	Interstate*	Freeways Expressways	Principal Arterial	Minor Arterial	Major Collector	Minor Collector	Local
	<u>01</u>	02	<u>03</u>	<u>04</u>	<u>05</u>	<u>06</u>	<u>07</u>
Jan	1.07	1.07	1.09	1.03	1.07	1.07	1.07
Feb	1.02	1.04	1.00	1.00	1.05	1.05	1.05
Mar	1.00	0.99	1.01	0.99	1.02	1.02	1.02
Apr	0.99	0.97	0.97	0.96	1.00	1.00	1.00
May	1.00	0.97	0.97	0.98	0.98	0.98	0.98
Jun	0.97	0.98	0.96	0.95	0.97	0.97	0.97
Jul	1.00	1.00	0.99	1.00	0.99	0.99	0.99
Aug	0.99	0.97	0.98	1.00	1.00	1.00	1.00
Sep	1.02	1.00	0.99	1.01	1.00	1.00	1.00
Oct	1.00	1.00	0.99	1.03	0.98	0.98	0.98
Nov	1.04	1.02	1.05	1.03	0.99	0.99	0.99
Dec	1.05	1.02	1.03	1.04	1.00	1.00	1.00

Local roads use no adjustment factors for volumes less than 500 vehicles per day. Those with volumes greater than or equal to 500 are adjusted using the factors for the next higher functional classification.

Prepared: AHTD:P&R:TS-EMB March 23, 2011

<sup>\*</sup>These factors were obtained by averaging the previous three years data.

Prepared By Technical Services March 14, 2011

AXLE ADJUSTMENT FACTORS
BY FUNCTIONAL CLASSIFICATION 2011 Count Year

Functional					District	trict					Statewide
Classification	T	2	3	4	5	9	7	8	6	10	Average
					Rural						
01	0.59	0.87	0.62	0.78	I	0.65	09.0	0.82	-	0.61	69.0
02	92.0	Ī	0.78	I	0.79	0.88	0.80	1	ł	0.80	0.80
03	0.85	0.79	0.82	0.87	0.88	0.87	0.82	0.88	0.88	0.81	0.85
04	0.82	0.91	0.78	0.93	0.90	96.0	0.87	0.90	0.92	0.91	0.89
0.5	06.0	0.89	0.82	0.95	0.90	96.0	0.90	0.89	0.93	0.95	0.91
90	96.0	0.97	0.95	0.90	0.97	0.65	96.0	0.92	96.0	0.92	0.92
07	0.92	0.95	0.88	0.97	86.0	0.84	0.93	0.92	96.0	0.95	0.93
					Urban	u					
01	0.61	68.0	0.62	0.84	1	*96.0	0.61	0.77	0.91	1	0.78
02	I	0.93	0.81	96.0	0.84	0.91*	0.82	ł	0.89	0.90	0.88
03	0.94	0.93	0.93	0.97	0.94	0.98	0.92	96.0	0.94	0.95	0.95
04	0.93	0.97	0.95	96.0	96.0	0.98	0.97	0.97	96.0	0.97	96.0
05	96.0	0.99	0.97	86.0	96.0	0.98	0.99	0.97	0.97	0.99	86.0
90	1	0.99	1	1	I	0.95	I	I	I	1	76.0
07	0.92	0.97	0.97	0.99	0.97	0.98	0.94	0.94	0.98	0.98	96.0

Insufficient Mileage in District to Determine Factors
 \* See Supplemental Sheet for Little Rock Urbanized Area

# LITTLE ROCK URBANIZED AREA AXLE ADJUSTMENT FACTORS BY LOCATION 2011 Count Year

Location	Axle Adjustment Factor
Interstate 630	.98
Interstate 430	.97
Interstate 440	.67
Highway 440	.90
Interstate 30 from Highway 67 to Congo Road	.76
Interstate 30 from Congo Road to University Ave	.81
Interstate 30 from University Ave to South Terminal	.79
Interstate 30 from South Terminal to North Terminal	.93
Interstate 40 from Interstate 430 to North Interchange	.85
Interstate 40 from North Interchange to Highway 67	.88
Interstate 40 from Highways 67 to 161	.80
Interstate 40 from Highway 161 to Interstate 440	.72
Highway 67 from Interstates 40 to 440	.97
Highway 67 from Interstate 440 to Jacksonville	.93

Prepared By Technical Services March 5, 2010

#### 404 – LEGISLATIVE REVIEW

All proposed state legislation generated in the 88<sup>th</sup> Arkansas General Assembly was reviewed for its potential impact to the Department. The daily and weekly legislative reports were prepared and distributed for staff review. At the federal level legislation related to reauthorization, appropriations, and implementation was monitored and analyzed for its impact to the Department.

### 405 – MODELING AND MANAGEMENT STUDIES

The Policy Analysis Section prepared studies and assessments for proposed federal and state funded projects. Profiles and reports were prepared in response to administrative requests. Additional analyses were conducted regarding the findings of the draft 2006 Arkansas State Highway Needs Study and Highway Improvement Plan. Related materials were updated. TransCAD simulation modeling was conducted for NARTS and CARTS in cooperation and coordination with the MPO staffs. Work on a Statewide Travel Demand Model was initiated (see Job number 012130). The Arkansas Statewide Model Users Group was created to encourage coordination and communication among the members.

### 406 – PERFORMANCE MEASURES

Work continued on performance measures within the Division, as identified by individual sections, The Planning and Research Division Performance Measures committee continued research to determine the most effective methods of presenting performance data to the internal and external audiences. Various public involvement methodologies are continuing to be investigated by the committee.

### **408 - FINANCE**

Gasoline and diesel tax rate changes and price fluctuations were monitored. Various annual, quarterly, and monthly statistical reports reflecting highway user revenues were prepared. Fiscal data on taxation for local governments was evaluated. Monitored trends, prices, construction costs, and other economic indicators in Arkansas and analyzed their impact on residents, road use, and highway funds. Generated and analyzed bond financing scenarios as needed to determine bond issue and construction program amounts. Data for submittal as a part of the annual statistical reports was gathered, prepared, and submitted to FHWA prior to the deadline for use in the annual Highway Statistics Report.

### **409 – PUBLICATIONS**

Prepared and distributed the table of motor vehicle registrations and fees by county. The <u>2011 Selected Facts and Figures</u> report was compiled and published. The Department's Biennial Report was published. The <u>2010 Fact Sheet of Information on Arkansas' Transportation System</u> was published. Historical information was provided in response to requests. Compiled and distributed the <u>2011 Director's Book</u>.

Preparations for the <u>Development of Highway Legislation in Arkansas</u> for the 88<sup>th</sup> Arkansas General Assembly began. The Department coordinated responses to questionnaires and surveys requesting specific information regarding the Department's activities. Activities of the 88<sup>th</sup> Arkansas General Assembly were monitored and reported. Fiscal Year 2010 turnback estimates for Arkansas counties and cities were prepared and distributed.

### 410 - HIGHWAY SYSTEM PLANNING STUDIES

Activities were conducted on several planning studies in various areas of the state and information was provided to assist decision-makers. Various studies analyzed route and corridor feasibility in order to maintain the highest quality highway system and to provide the best service for the safe and efficient movement of people and goods within and through the State.

The status of the studies and reports during Fiscal Year 2011 is provided below.

### **Studies Completed**

- I-40/Lone Elm Road Interchange Feasibility Study (Franklin County)
- Highway 112/Razorback Road Study (Fayetteville)
- Railroad Overpass Study (Hensley)
- Highway 201 Widening Feasibility Study (Mountain Home)
- Highway 63 Corridor Improvement Study (Jonesboro)
- Memo Study: Highway 64 at Southbound Highway 67 Ramps (Beebe)
- Memo Study: I-540/Highway 264 Interchange Study (Lowell)
- Purpose and Need Perry County Road 14
- Purpose and Need North Searcy Connector
- Purpose and Need Hillbilly Lane to Highway 23 in Ozark
- Road User Cost Analyses for Jobs 012111, 040517, 061256, 061311, 061187 and 080388
- Review Maintenance of Traffic Plans for I-430/I-630
- Revised Procedures for New or Revised Freeway Access in Arkansas

### **Studies in Progress**

- I-55/Highway 64 Interchange Study (Marion)
- Study of Access Improvements to Highways 32 and 71 (Ashdown)
- Highway 108 Study (Foreman)
- I-40/Highway 59 Interchange Modification Study (Van Buren)
- I-40 Interchanges Study (Van Buren)
- Northwest Arkansas Eastern North-South Corridor Study
- I-540/Highway 412 Springdale Bypass Interchange Justification Report
- Beebe Railroad Overpass Feasibility Study (Highway 31)
- I-40: Conway to North Little Rock Corridor Study
- I-630/Pine-Cedar Roundabout
- Highway 67 Corridor Study (Jacksonville Cabot)
- Highway 70 Widening Study (Hot Springs to I-30)

- Highway 5 Widening Study (Benton to Pulaski County Line)
- Highway 5 Improvement Study (Hot Springs Village to Benton)
- Highway 10 Improvement Study (I-430 to Ferndale Cutoff Road)
- Highway 161 Improvement Study (Jacksonville)
- Highway 190 Improvements Study (Pine Bluff)
- Highway 335 Study (Union County)
- Highway 82 Corridor Study (Texarkana to Lake Village)
- Clarksville Congestion and Access Improvement Study
- Harrison Bypass Study (Highway 65)
- Highway 43 Railroad Overpass Study (Siloam Springs)
- Highway 139 Improvement Study Highway 18 to Missouri State Line (Monette)
- Memo Study: Highway 89 Widening Study (Highway 67 to Highway 5) (Cabot)
- Memo Study: Highway 135 from Highway 49 to Oak Grove Heights (Greene County)
- Job 040584 I-540/Hwy. 71B/Hwy. 112 Interchange Justification Report
- Interstate 30/Interstate 430 Interchange Improvement Analysis

### **Consultant Studies Completed**

AHTD staff reviewed and coordinated activities on the following consultant studies that were completed in F.Y. 2011.

- I-40 Break in Access Concept Approval (Maumelle)
- I-540/Don Tyson Parkway Interchange Engineering and Operational Acceptability Review (Springdale)
- Fulbright Expressway/Highway 71B Interchange Study Technical Memorandum
- Highway 71/Northeast J Street Break in Access Concept Approval (Bentonville) (Deferred)

### **Consultant Studies in Progress**

AHTD staff reviewed and coordinated activities on the following consultant studies that are in progress.

- I-30 Corridor Improvement Study
- Continuous Flow Intersection Study
- I-40 Break in Access Engineering and Operational Acceptability Review (Maumelle)
- Northwest Arkansas Regional Airport Access Road Environmental Impact Study
- Northwest Arkansas Western Beltway Study
- Feasibility Study of Enhanced Corridor from Batesville, MS to Brinkley, AR
- I-540/8<sup>th</sup> Street Interchange Alternatives for the Environmental Assessment
- Conceptual Design of Interchanges for I-40: Conway to North Little Rock Corridor Study
- Conceptual Design for Highway 67 Corridor Study (Jacksonville Cabot)
- Conceptual Design for Highway 5 Widening Study (Benton to Pulaski County Line)

### **412 - AIR QUALITY ACTIVITIES**

The Department provided Congestion Mitigation/Air Quality (CMAQ) funds to support air quality planning efforts by the Metropolitan Planning Organizations (MPO) in central Arkansas and Crittenden County. Specific activities in central Arkansas include coordination with Metroplan for the Ozone Action Day Program, implementation of the Ozone Action Day program within the Department, and participation in the Central Arkansas Clean Air Task Force. In Crittenden County, air quality planning activities include the gathering, analysis and preparation of local and statewide data used for emission modeling and conformity determinations for the Long Range Plan. The Department coordinated with FHWA for the Motor Vehicle Emissions Simulator (MOVES) training for AHTD, CARTS, WMATS, and ADEQ staffs. Analysis of data conversion from MOBILE6 to MOVES for sensitivity analyses was provided.

### 413 - CITIES OVER 50,000 POPULATION

The Statewide Planning Section sponsored the biennial Metropolitan Planning Conference. The Metropolitan Planning Process (23USC134(c)(3)) was coordinated in all urbanized areas and the necessary activities were carried out for each area as explained below and in each MPO Unified Planning Work Program (UPWP). UPWPs, PL Agreements, Performance and Expenditure Reports and Transportation Improvement Programs were developed for each Metropolitan Area. Progress reports and planning claims were reviewed and approved. Specific areas and activities are as follows:

### Bi-State (Fort Smith - Van Buren) Metropolitan Planning Organization (BSMPO) -

- Initiated the update of the existing 2030 MTP.
- MPO director retired and new MPO staff was hired.
- Work was completed to redesignate Bi-State MPO as Frontier MPO. BSMPO ceased operation as of June 30. The Fort Smith area MPO became Frontier MPO on July 1.
- Staff worked with local jurisdictions to submit various FHWA enhancement grants.

### Central Arkansas Regional Transportation Study (CARTS) –

- Refinements to the 2030 regional travel demand model continued as well as preliminary plans for an update to 2040 including selection of a consultant.
- Participated in Arkansas Model Users Group.
- Metroplan staff worked cooperatively with local governments and the AHTD to provide traffic forecasts for major corridor studies such as Interstate 40, Highway 67, Highway 5, and the proposed Maumelle I-40 Interchange.
- The annual Congestion Management System report was produced with use of GPS units provided by the AHTD.
- The Ozone Action Day program was continued.
- Monitoring continued of air quality issues and their impact on the region. Ozone readings in the summer of 2010 kept central Arkansas in attainment of the current standard. However, with the standards again being revised to allow less ozone and poor air quality levels in the early summer of 2011, it is expected that the new standard will cause central Arkansas to be designated as a non-attainment area.

- Considerable Metroplan and Department staff time was devoted to tracking and coordinating project design and cost items.
- Planning was begun for the CARTS 2040 Metropolitan Transportation Plan (MTP) update and consultant selection process initiated.
- Federal-aid functional classification maps were updated to be consistent with new FHWA guidance.
- I-630 Fixed Guideway Alignment Study progressed with a couple of public involvement session and the identification of a proposed alignment.
- Phase II of the River Rail Airport Study progessed with public involvement session and the identification of possible system extensions.
- Participated in the MOVES training with AHTD.

### <u>Hot Springs Area Metropolitan Planning Organization</u> –

- Updated the existing 2030 MTP and adopted the revisions as the 2035 MTP.
- Coordinated with Intracity Transit (IT) to implement transit programs in the MPO area.
- Coordinated with IT and Hot Springs National Park to implement and test National Park Service (NPS) Transit through Parks and Public Lands program in Hot Springs.

### <u>Jonesboro Area Transportation Study (JATS)</u> –

- Updated the existing 2030 MTP and adopted the revisions as the 2035 MTP.
- Assisted with the development of the ITS Architecture and Deployment Plan.
- Coordinated with transit providers to implement transit programs in the MPO area.

### Northwest Arkansas Regional Transportation Study (NARTS) -

- Updated the existing 2030 MTP and adopted the revisions as the 2035 MTP.
- Continued refinement of the 2030 travel demand forecast model.
- Initiated Western Beltway Study.
- Coordinated with AHTD on the Eastern North-South Corridor Study.
- Participated in the Arkansas Model Users Group.

### Pine Bluff Area Transportation Study (PBATS) –

- Updated the existing 2030 MTP and adopted the revisions as the 2035 MTP.
- Coordinated with Pine Bluff Transit to provide transit planning and public participation for transit activities.

### Texarkana Urban Transportation Study (TUTS) –

- Provided MPO 101 workshop for Policy Board to assist new members and to ensure that all members understand roles and relationships.
- Coordinated with TXDOT to complete the travel demand model update for use in census cycle product delivery.
- Developed performance measures in preparation for MTP update.
- Converted historical files to electronic format consistent with current file system.

### West Memphis-Marion Area Transportation Study (WMATS) –

• Continued to monitor crash data, land use and other characteristics with data being entered into the GIS system and specialized reports produced upon request.

- The documentation for the Air Quality Conformity Determination was submitted and approved.
- The Congestion Management Process (CMP) was reviewed and approved by the FHWA with recommendations to improve documentation and assist in regional implementation.
- Continued to monitor air quality issues and their impacts in the MPO area.
- Participated in the MOVES training with the Department.

### 415 - REFERENCE LIBRARY

Purchased, collected and filed relevant transportation data, reports and notices. Geographic Information System activities were continued for the on-line library. The Arkansas Statutes and Acts books were updated. Reviewed professional articles on transportation issues and prepared reports as necessary.

### 416 – STATEWIDE PLAN

With the QIP Team for Non-Metropolitan Local Elected Officials, recommended revisions to the Public Involvement Process. Provided support activities and research for the Blue Ribbon Committee. A Request for Proposal was developed and Alliance Transportation Group, Inc. was selected as the consultant for the Statewide Travel Demand Model, Phase I. Various data products for use in the Statewide Travel Demand Model were reviewed and researched. A survey process was initiated for the rural Interstate Level of Service research and public involvement for the Statewide Plan.

### 417 – PAVEMENT PERFORMANCE DATA COLLECTION

Data collection by the Department's ARAN was completed on the entire National Highway System (NHS), all of Districts 4, 5, 8, and 9 and part of District 6, as well as various routes included in the American Recovery and Reinvestment Act (ARRA), and routes affected in the Fayetteville Shale Play area (significant portion of Districts 5 and 8) were collected twice. Data collected on routes have been processed and QC/QA was completed on the majority of the data. Data was also collected for several special projects to support the Research Section as well as other Sections and Districts within the Department. All necessary data and imagery were supplied to the MMHIS. A secondary data collection vehicle is being developed by Pavement Management staff to provide roughness data and right-of-way imagery for low volume, institutional, and Fayetteville Shale Play routes. The video capture system is working with a distance measuring system and geographic positioning system, with integration of a pavement roughness system remaining to be completed. After evaluation and testing, it should be available to provide roughness data and imagery on Fayetteville Shale Play routes multiple times per year.

### 419 - HIGHWAY PERFORMANCE MONITORING SYSTEM

Current data files were maintained. New HPMS files were developed and tested for the HPMS geospatial/web application. HPMS data was submitted to the FHWA.

### 420 - INTERMODAL TRANSPORTATION PLANNING

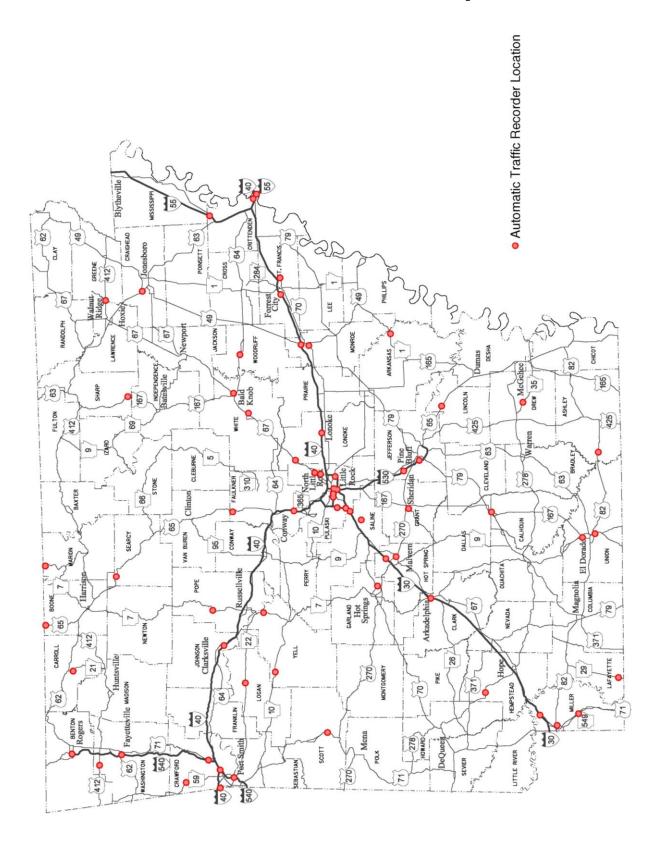
Technical assistance was provided to regional intermodal freight facility authorities and to the State's MPOs. Assistance included guidance for Federal-aid construction projects and analysis of data on regional freight shipments. Support was provided for the formation of a new freight facility authority located in Southwest Arkansas. Freight data and freight transportation maps were provided as requested. Support functions were provided to AASHTO Standing Committees. Data collection continued for the new State Rail Plan and Directory of Railroads. A planning grant application was submitted to the Federal Railroad Administration (FRA) for a study of passenger rail service between Little Rock and Memphis and for a Service Development Plan for the Amtrak Texas Eagle route from Little Rock to Texarkana. Other rail planning activities included the completion of a railroad disaster grant, the submission of grant applications to FRA to improve two Class III rail lines, the execution of a grant agreement with the FRA for a railroad bridge improvement project and the submission of a grant application to FHWA for rail highway crossing improvements on a high-speed passenger rail corridor. Waterways support activities included providing riverport data to the Arkansas Waterways Commission.

Statewide freight data for all transportation modes was purchased and coordinated with data preparation activities for the Statewide Model. Data collection began to evaluate the State's NHS intermodal freight connector routes. Assistance was given in the development of the five-year workplan for the Institute for Trade and Transportation Studies. Technical assistance was provided to the proposed third Mississippi River highway/railroad bridge project near West Memphis/Memphis.

### 421 - AUTOMATED TRAFFIC DATA COLLECTION

All automatic data collection sites were maintained and repaired as needed to stay operational. The Technical Services Recorder Shop maintained all records of repairs to all data collection devices as well as kept all portable equipment in working condition and maintained supplies for the installation of permanent automated data collection sites. Three new urban and one rural site were installed and seven existing sites were rehabilitated. The purpose of the rural site is to monitor traffic along a load-posted bridge.

### **Automatic Traffic Recorder Location Map**



### CONTINUOUS AUTOMATED TRAFFIC MONITORING STATIONS (VOLUME COUNT, VEHICLE CLASSIFICATION and WEIGH-IN-MOTION)

### **RURAL**

Station	Route	Sec	Log Mile	Location	Lanes	Year Est	Year WIM
Functional	Class 01						
460006	I-30	11	8.00	At C.R. C-63 Overpass (Texarkana)	4	1994	1994
100019	I-30	14	77.10	At Caddo River Bridge (Arkadelphia)	4	1998	1998
301769	I-30	21	101.70	At C.R. 74 Overpass (Glen Rose)	4	2006	2006
170049	I-40	11	0.25	At Oklahoma State Line (Dora)	4	2008	2008
360009	I-40	21	63.19	West of U.S. 64 (Lamar)	4	2009	2009
230021	I-40	32	134.60	At C.R. Overpass (Mayflower)	4	1996	1996
430037	I-40	41	176.97	East of S.H. 31 Interchange (Lonoke)	4	2002	2002
481524	I-40	43	215.25	West of U.S. 49 (Brinkley)	4	2004	2004
680025	I-40	51	238.70	At C.R. F-10 Overpass (Forrest City)	4	1991	1991
181501	I-55	11	26.80	At C.R. D-28 Overpass (Gilmore)	4	1996	1996
350019	I-530	05	29.20	At C.R. A-4 Overpass (Samples)	4	1996	1996
170064	I-540	03	22.36	South of Newberry Rd (Alma)	4	2007	2007
		03	22.30	South of Newscrip Rd (Amina)	7	2007	2007
Principal A		01	0.60	Carth of Missouri Ctata Line (Omela)	4	2007	2007
050026	US 65	01	0.69	South of Missouri State Line (Omaha)	4	2007	2007
641932	US 65	04	5.40	North of S.H. 235 (Pindall)	2	1979	1996
230001	US 65	09	6.56	South of S.H. 124 (Damascus)	4	2000	2000
400028	US 65	16	8.70	North of S.H. 114 (Gould)	2	1979	
730068	US 67	13	10.40	At S.H. 258 Overpass (Bald Knob)	4	1991	1999
260059	US 70	09	1.50	1.2 Miles North of U.S. 270 (Hot Springs)	4	2005	2005
630008	US 71	10	10.25	2 Miles North of U.S. 270 (Midway)	2	2003	2003
071813	US 79	05	8.20	North of U.S. 167 (Thornton)	4	1979	1995
020006	US 82	08	3.50	East of Ouachita River Bridge (W. Crossett)	2	1984	2003
700040	US 167	01	13.41	South of S.H. 82 (El Dorado)	4	2009	2009
300052	US 270	08	3.60	South of I-30 (Malvern)	2	2006	2006
720034	US 412	02	4.20	West of S.H. 112 (Tontitown)	4	2003	2003
281983	US 412	08	0.67	East of Cache River Bridge (Light)	2	2002	2002
010009	SH 1	05	12.50	NE of S.H. 17 (St. Charles)	2	1999	1999
750006	SH 7	13	11.20	South of S.H. 155 (Dardanelle)	2	2000	2000
460011	SH 549	01	20.37	1 Mile North of County Road 4 (Fouke)	4	2005	2005
Minor Arte	erial 06						
740035	US 64	13	5.94	West of S.H. 17 (Patterson)	2	2002	2003
290002	US 278	05	7.30	South of S.H. 332 (Ozan)	2	1983	1998
580024	SH 7	15	15.90	North of S.H. 164 (Dover)	2	1987	
750010	SH 10	03	7.20	East of County Road 537 (Havana)	2	2003	2003
420010	SH 22	03	14.00	East of S.H. 980 (Paris)	2	2001	2001
370001	SH 29	01	3.30	North of Louisiana State Line (Bradley)	2	1995	1995
220024	SH 35	08	5.80	Southeast of U.S. 278 (Monticello)	2	1979	2003
171651	SH 59	05	10.00	North of Natural Dam (Natural Dam)	2	2000	2000
		03	10.00	North of Natural Dain (Natural Dain)	2	2000	2000
Major Col		1.5	0.00	E . (G.H. 45 (D.: 1)		1000	1000
480038	US 70	17	9.90	East of S.H. 17 (Brinkley)	2	1999	1999
080004	SH 21	05	15.70	South of U.S. 62 (Berryville)	2	1987	2000
270012	SH 46	02	17.80	South of U.S. 270 (Sheridan)	2	1983	2005
680032	SH 50	01	1.00	West of S.H. 38 (Madison)	2	1983	1996
670027	SH 115	03	13.80	East of U.S. 167 (Cave City)	2	1983	1996

### CONTINUOUS AUTOMATED TRAFFIC MONITORING STATIONS (VOLUME COUNT, VEHICLE CLASSIFICATION and WEIGH-IN-MOTION)

### **URBAN**

Interstate 11	
600563 I-30 23 126.50 West of Little Rock at Z Motel (County Line) 6 20	006
	997
600639 I-30 23 139.60 Between 6 <sup>th</sup> and 9 <sup>th</sup> Streets (Little Rock) 7 19	997
180209 I-40 52 283.97 At Mississippi River Bridge (West Memphis) 6 20	007
180210 I-55 11 0.95 At Mississippi River Bridge (West Memphis) 4 20	800
600345 I-430 21 4.25 N. of Col. Glenn Rd. At W. 36 <sup>th</sup> St. (Little Rock) 6 20	006 2006
600504 I-440 01 6.50 West of U.S. 165 (North Little Rock) 6	993 1993
350314 I-530 05 37.00 North of S.H. 190 (Pine Bluff) 4 20	000 2000
650284 I-540 01 7.00 North of S.H. 22 (Rogers Ave) (Fort Smith) 4 20	004 2004
720236 I-540 04 61.30 South of U.S. 62 Interchange (Fayetteville) 4 20	007 2007
040432 I-540 05 84.82 North of U.S. 71B (Rogers) 4 20	004 2004
600426 I-630 21 2.00 At Park Street Overpass (Little Rock) 6 19	985
600429 I-630 21 3.40 At Ray Winder Field LTPP Site (Little Rock) 6 20	005
Other Freeways and Expressways 12	
	990 1990
600613 US 67 10 7.80 South of Redmond Road (Jacksonville) 4 19	987
430038 US 67 11 1.30 South of S.H. 89 (Cabot) 4 19	991 1995
460286 SH 245 01 2.22 South of U.S. 82 (Texarkana) 4 20	002 2002
600870 SH 440 02 12.00 South of S.H. 161 (Rixey) 6 20	003 2003
Other Principal Arterials 14	
<u> </u>	987
<b>1</b> ,	997 1997

### 422 - HIGHWAY CONDITION INVENTORY AND ANALYSIS

Field inventory data was collected by the field crews and was analyzed by the office staff. Many State Highways were re-logged. A computer data file was maintained and updated as construction jobs were completed.

### 423 - PAVEMENT MANAGEMENT SYSTEM (PMS)

Data from the NHS and Secondary systems was processed and reported. The most current International Roughness Index (IRI) data on the state maintained highway network was supplied to the HPMS. The data from all routes collected with the ARAN has been entered into a PMS database and images have been loaded into the MMHIS. All existing data files have been processed to conform to the Roadway Inventory System using geographic coordinates provided from the Surveyor asset inventory software.

The Surveyor asset inventory software was used to locate and categorize assets required to populate basic inventory data for the PMS database, this is shown in the attached sample survey. PMS personnel used the Surveyor software with imagery from the five (5) high-definition digital cameras mounted on the ARAN to extract asset data items. Each data item extracted has corresponding geographic coordinates that allow all assets to be displayed using the Department's GIS. The geographic coordinates are used to match the raw ARAN data files to the Department's Roadway Inventory System.

PMS personnel have used WiseCrax automatic crack detection software to locate and classify cracks on the NHS routes and the Fayetteville Shale Play routes. Secondary highways with asphalt surfaces have been processed as well. Four licensed copies of the software have been acquired and installed on desktop computers, each with a 64-bit operating system installed. This operating system allows the installation of more system memory that allows the WiseCrax software to process cracking data on even the longest routes collected by the ARAN vehicle. D-Rate software is used to provide cracking distress data for concrete surface roadways and certain asphalt surface roadways not suitable for use with WiseCrax.

Curve-Fit software was used to provide more accurate horizontal and vertical curvature data and pavement grade data. Edge Drop-off software was used to locate pavement segments that have developed significant deterioration along the edge of the pavement, creating an unsafe drop-off condition. The Edge Drop-off software allows PMS personnel to view the transverse profile of the pavement and visually observe the location of measured ruts. This provides a tool to QC/QA the rut data provided by the ARAN. These items, along with pavement macro texture, are made available to the Traffic Safety Section for use in roadway safety analysis. A QC/QA procedure was developed to ensure the reported rut values reflect actual pavement condition.

Pavement Management and other required data were provided to the vendor selected to upgrade and implement the Department's Deighton® Total Infrastructure Management Software Concurrent Transformation (dTIMS CT) asset management software. All processing variables and rehabilitation trigger values were determined and entered into the software. This will allow users of the software to perform system-wide, multi-year, multi-budget, scenarios to determine future conditions and pavement rehabilitation needs.

**Sample Surveyor Pavement Management Database** 

				Jampie	Julveyor	Pavement ivianagem	ent Database
Route	Section	BegLogMile	EndLogMile	Latitude	,	Code	Description
49	2	0.00		36.2389711	-90.3198172	Begin Section	Clay County Line
49	2	0.01		36.2387879	-90.3199517	Pavement Surface Change	HMA - Hot Mix Asphalt
49	2	1.46	1.478	36.2236561	-90.3377712	Bridge / Overpass	A0418
49	2	1.55	1.574	36.2226135		Bridge / Overpass	A0419
49	2	3.65	3.668	36.2006475		Bridge / Overpass	A0420
			3.000				
49	2	4.69		36.1903238		Railroad Crossing	Single Track
49	2	5.31		36.1870344		State Highway Junctions	Jct State Highay 34
49	2	5.54		36.1836798	-90.3849847	Pavement Surface Change	HMA - Hot Mix Asphalt
49	2	6.16	6.176	36.1759789	-90.3907015	Bridge / Overpass	03086
49	2	7.16	7.175	36.1637019	-90.4002585	Bridge / Overpass	03085
49	2	8.68	8.696	36.1450723	-90.4148603	Bridge / Overpass	03084
49	2	9.19	9.203			Bridge / Overpass	03083
49	2		9.203				
		9.52	44.000	36.1350105			RCB Reinforced Concrete Box Bridge Length (X028)
49	2	11.81	11.836	36.1079827		Bridge / Overpass	02460
49	2	12.69	12.702	36.1001632	-90.4592355	Bridge / Overpass	02459
49	2	13.52		36.0927252	-90.4710089	Culverts	RCB Reinforced Concrete Box Bridge Length (X028)
49	2	13.92		36.0891117	-90.4765559	Pavement Surface Change	HMA - Hot Mix Asphalt
49	2	13.95	13.972	36.0888245	-90.4770045	Bridge / Overpass	02006
49	2	14.00		36.0883185		Pavement Surface Change	
49	2		11 105			Bridge / Overpass	HMA - Hot Mix Asphalt
		14.41	14.465				01986
49	2	14.85		36.0805929		State Highway Junctions	Jct U.S. 49B
49	2	15.61		36.0722094	-90.4984124	State Highway Junctions	Jct State Highway 135
49	2	16.07	16.106	36.0660768	-90.5015203	Bridge / Overpass	05083
49	2	16.77		36.0563369	-90.5046972	State Highway Junctions	Jct U.S. 49Y
49	2	16.94		36.054003		Pavement Surface Change	HMA - Hot Mix Asphalt
49	2	17.02		36.0528183		State Highway Junctions	Jct U.S. 412
						<u> </u>	
49	2	18.85		36.0308836		State Highway Junctions	Jct State Highway 358
49	2	19.37		36.0236833		State Highway Junctions	Jct State Highway 358
49	2	20.34	20.371	36.0109668	-90.5311575	Bridge / Overpass	06501
49	2	22.06		35.9875489	-90.5407417	State Highway Junctions	Jct State Highway 69
49	2	22.35		35.9837493	-90.5430149	Culverts	RCB Reinforced Concrete Box Bridge Length (X028)
49	2	23.92		0	0	End Section	Craighead County Line
49	3	0.00		35.9658327		Begin Section	Greene County Line
-	3					State Highway Junctions	
49		2.07	2 22=	35.9407013			Jct U.S. 49B
49	3	2.19	2.207	35.93935		Bridge / Overpass	06615
49	3	3.84		35.9178652	-90.5887314	Pavement Surface Change	HMA - Hot Mix Asphalt
49	3	4.06		35.9145614	-90.5884365	Pavement Surface Change	HMA - Hot Mix Asphalt
49	3	5.06	5.105	35.900054	-90.5883924	Bridge / Overpass	06614
49	3	5.50	5.521	35.8936564	-90.5885691	Bridge / Overpass	06613
49	3	5.61		35.892132		State Highway Junctions	Jct U.S. 49B
49	3	6.47	6.481	35.8816159		Bridge / Overpass	06612
			0.401			,	
49	3	6.89		35.8764806		Pavement Surface Change	HMA - Hot Mix Asphalt
49	3	7.04		35.8746953		Pavement Surface Change	HMA - Hot Mix Asphalt
49	3	10.08		35.8607671	-90.6494833	State Highway Junctions	Jct State Highway 351
49	3	10.33		35.8589346	-90.6533528	Pavement Surface Change	HMA - Hot Mix Asphalt
49	3	10.43		35.8582056	-90.6548667	Pavement Surface Change	HMA - Hot Mix Asphalt
49	3	10.52		35.8574804		State Highway Junctions	Jct State Highway 351
49	3	11.09		35.8529721		State Highway Junctions	Jct State Highway 91
-							5 7
49	3	11.81	40.45=	35.842958		Pavement Surface Change	HMA - Hot Mix Asphalt
49	3	12.36	12.405	35.8351123		Bridge / Overpass	05452
49	3	12.47	12.509	35.8334982		Bridge / Overpass	05451
49	3	13.32		35.8211507	-90.6689237	State Highway Junctions	Jct State Highway 18
49	3	14.07		35.8103055	-90.6693289	Culverts	RCB Reinforced Concrete Box Bridge Length (X028)
49	3	14.26	14.322	35.8075249		Bridge / Overpass	06352
49	3	14.45		0		End Section	Jct State Highway 1/Parker Road
-							
49	5	0.00		35.7052007		Begin Section	Craighead County Line
49	5	2.01		35.678742		Pavement Surface Change	HMA - Hot Mix Asphalt
49	5	2.82		35.6681625		Pavement Surface Change	HMA - Hot Mix Asphalt
49	5	3.26		35.6623969	-90.8742228	Pavement Surface Change	HMA - Hot Mix Asphalt
49	5	4.01		35.6525841		Pavement Surface Change	HMA - Hot Mix Asphalt
49	5	4.07		35.6517979		State Highway Junctions	Jct State highway 214
49	5	5.06		35.6387004		Pavement Surface Change	HMA - Hot Mix Asphalt
	5					-	
49		5.39		35.6344187		Pavement Surface Change	HMA - Hot Mix Asphalt
49	5	5.55		35.6323827	-90.8915727	Pavement Surface Change	HMA - Hot Mix Asphalt

### 425 - CONTRACT TURNING MOVEMENT COUNTS

A total of 128 turning movement counts were completed in Fiscal Year 2011 by *The Traffic Group*.

### 426 - APPROVED IN-STATE AND OUT-OF-STATE TRAVEL AND SEMINARS

Out-of-state trips were taken to attend transportation related meetings and seminars to acquire training, to update knowledge and techniques, and to network with others involved in planning and financing transportation programs and systems.

Out-of-state trips and their purposes are listed below.

Charlotte, NC – Institute for Trade and Transportation Studies (ITTS) Freight in the Southeast 2011 Conference

Roanoke, VA - Pavement Evaluation 2011 Conference

Indianapolis, IN - 2010 Clarus Initiative Coordinating Committee Meeting

Kansas City, MO - 2010 RAC/TRB State Representatives Meeting

Albuquerque, NM - Every Day Counts Innovation Summit

Washington, DC - FHWA's Highway Information Seminar

Williamsburg, VA – Transportation Research Board Committee's 12<sup>th</sup> National Tools of Trade Conference

Hershey, PA - GIS Transportation Conference

Denver, CO – FHWA/FTA Transportation Planning Capacity Building (TPCB) Program's Peer Exchange on Fiscal Constraint

St. Louis, MO – State Highway Map Printing

Roanoke, VA - Pavement Evaluation 2010 RPUG 22<sup>nd</sup> Meeting

Springfield, MO – FHWA Introduction to Transportation Conformity

Washington, DC – National TRB Meeting

Austin, TX – 2011 SHSP Peer Exchange

Boston, MA – AASHTO Standing Committee on Planning

Jacksonville, FL – Standing Committee on Rail Transportation

### 427 – CONTRACT COLLECTION OF TRAFFIC VOLUME COUNTS

A total of 8,531 traffic volume counts were collected in Fiscal Year 2011 by *The Traffic Group*.

### 428 - MULTIMEDIA HIGHWAY INFORMATION SYSTEM (MMHIS)

Over 600 roadway sections were added to the MMHIS. These represent the Interstate, NHS, and State Highway data collected by the Department's ARAN data collection vehicle. External drives containing the MMHIS data and imagery were delivered to the maintenance headquarters in Districts 8 and 9. The scope the MMHIS was limited to the routes for which each office is responsible. The MMHIS in the District 8 and 9 headquarters was also updated with the latest data and imagery and the installed MMHIS program was updated to the latest version. Enhancements continue to be made to expand the capabilities of the MMHIS.

### 429 - CONTRACT COLLECTION OF VEHICLE CLASSIFICATION COUNTS

A total of 770 vehicle classification counts were collected in Fiscal Year 2011 by *The Traffic Group*.

### 430 – RAILROAD CROSSING COORDINATION

From July 1, 2010 through June 30, 2011, three work orders were issued to railroad companies to upgrade/install active warning devices and/or surfaces at railroad crossings in conjunction with highway improvements. During this same period, preliminary engineering was authorized to the railroad companies to provide plans and estimates for improvements at one crossing. Overpass Agreements were developed for four highway improvement projects. Minute Orders for four grade crossing improvement projects were prepared for the Arkansas Highway Commission. On-site inspections of railroad crossings were made as warranted.

### 431 – TRAFFIC CRASH LOCATION

The crash locators reviewed approximately 59,800 traffic crashes that occurred in the State in 2010 and 2011. A process using GeoMedia, Google Earth, and the Linear Referencing System (LRS) called the LRS Virtual Location Tool was implemented in May. The Department showed this tool to several law enforcement agencies (such as Arkansas State Police) for their use. The Department also coordinated with the Department of Finance and Administration and the Arkansas State Police to locate all crash reports electronically through the Traffic Record Coordinating Committee.

### 432 – TRAFFIC CRASH RECORD ANALYSIS

The Traffic Safety Section was the lead agency in the development of the State's SHSP. The goal of the SHSP is to identify traffic safety problems and recommend strategies to address these problems that will ultimately reduce the State's fatality rate. The SHSP was adopted by the Arkansas State Highway Commission in July 2007. The updated highway safety process for the planning, implementation and evaluation of the Highway Safety Implementation Plan (HSIP) was developed and submitted to FHWA for review and approval.

Crash analyses for safety projects in the current Statewide Transportation Improvement Program (STIP) were completed and updated. Other crash analyses and studies were conducted to identify high crash rate locations during the year for possible inclusion in the next STIP. These included studies at rural, unsignalized intersections and locations with a high rate of run-off-the-road crashes, locations involving vehicles crossing the median, and areas with a high rate of wet-weather crashes. In accordance with Minute Order 2009-035, an annual study on wrong-way crashes on Interstates and other Freeways was prepared. An annual report on HSIP was prepared and submitted to FHWA.

### 467 - RESEARCH SECTION PROJECTS FROM Q55 APPORTIONMENT

Federal-aid State Planning and Research Part I funds were transferred to the Research Section to provide additional funding for research projects. Performance and expenditure reports were prepared for individual research projects and submitted separately.

### GENERAL PLANNING STUDIES (2003) – 001968, 001969, 001970, and 001971

### 001968 - MACTEC ENGINEERING AND CONSULTANT

The Task Order 1 (Paragould Bypass Study) contract was terminated by a Stop Work Order issued on August 15, 2005.

The Task Order 2 (Highway 162 Improvement Study) contract was terminated by a Stop Work Order issued on November 3, 2005.

### 001969 - PARSONS BRINKERHOFF QUADE AND DOUGLAS, INC.

Task Order 1 (Highway 67/James Street Improvement Study) was adopted by Minute Order 2005-078 on June 22, 2005.

Task Order 2 (Highway 82 Improvement Study/Stamps) was adopted by Minute Order 2006-015 on January 11, 2006.

Task Order 3 (Continuous Flow Intersections Study) was initiated July 27, 2006 and is scheduled to be completed in State Fiscal Year 2012.

### 001970 – CARTER & BURGESS, INC.

Task Order 1 (I-30 Operations Study) was initiated August 7, 2003 and is scheduled to be completed in State Fiscal Year 2012.

### 001971 – PARSONS TRANSPORTATION GROUP

Task Order 1 (Interstate 540 Freeway Study) was adopted by Minute Order 2006-062 on April 12, 2006.

Task Order 2 (West Memphis – Marion Overpass) was adopted by Minute Order 2006-172 on November 15, 2006.

### 012130 – STATEWIDE TRAVEL DEMAND MODEL, PHASE I

Work on this project progressed on schedule. Fiscal Year 2011 completed activities include the development of traffic analysis zones and the base network. Data has been collected and purchased to populate zones and links.

### 012138 – PAVEMENT MANAGEMENT DATA INTEGRATION AND dTIMS CT SOFTWARE IMPLEMENTATION

Deighton® Associates Limited (DAL) was awarded the contract to upgrade and implement the dTIMS CT software. Deighton® representatives have upgraded the Department's single seat license of the dTIMS CT desktop version to a four seat SQL Server version of the software. They installed the software on Department servers and have incorporated the Pavement Management and Road Inventory databases into the software. Deighton® representatives met with Department personnel to determine pavement treatment strategies, rehabilitation strategies, treatment reset values, and treatment trigger values for use with the analysis software.

# 110549 –US 49 IMPROVEMENT STUDY (AR/MS) FEASIBILITY STUDY OF A FOUR-LANE CONNECTOR FROM BRINKLEY, ARKANSAS TO BATESVILLE, MISSISSIPPI

The Department assisted the Mississippi Department of Transportation in a feasibility study of a four-lane connector from Interstate 40 at Brinkley, Arkansas to Interstate 55 at Batesville, Mississippi, including a four-lane bridge across the Mississippi River. Mississippi signed a contract with Wilbur Smith Associates, Inc. The Policy Analysis Section staff conducted extensive reviews of the modeling activities under this contract.

#### STUDIES FUNDED THROUGH OTHER FEDERAL PROGRAMS

Projects in this section are funded using various Federal funds from programs other than SPR. Oversight is provided within the Planning and Research Division. Matching funds may be provided by a local source such as a city, county, trail sponsor, or an MPO. Accomplishments listed below are for informational purposes and provide examples of the additional planning activities that occurred during Fiscal Year 2011.

### 1711 - SCENIC BYWAYS, BIKEWAY AND PEDESTRIAN PROGRAMS

Responded to requests from organizations engaged in bicycle tourism and from cyclists for route and other information. Coordinated responses to these requests with local advocacy groups, national cycling resources, and State Parks and Tourism. The Department fielded queries from State agencies, communities, and individuals regarding AASHTO's design guidelines for bicycle facilities and sign regulations from the Manual for Uniform Traffic Control Devices, the AHTD Bicycle Facility Accommodation Policy, and the AHTD Sidewalk Policy.

The Department supported the Arkansas Health Department's Obesity Prevention Initiative to increase walking and bicycling. The Statewide Planning Section participated in a walkability event with AARP. Coordinated efforts between AASHTO/Adventure Cycling, MPOs, local governments, local advocates/volunteers, and Bicycle and Pedestrian Coordinators in neighboring states to identify potential routes for USBRS 51(Bella Vista to Texarkana), USBRS 80 (Lake Village to Texarkana), and USBRS 84 (Memphis, TN to Mena).

Annual Bicycle Friendly States Surveys were completed and submitted under a FHWA-supported League of American Bicyclist (LAB) initiative. An Alliance for Cycling and Walking survey was completed and submitted as part of a two-year national survey cycle. Local cycling groups, cities and MPOs were supported in integrating non-motorized modes into local transportation planning processes. Local communities and businesses were assisted in increasing their support for bicycling and in making application for LAB Bicycle Friendly Community (BFC) and Bicycle Friendly Business (BFB) Awards.

Awards for Bicycle Bronze have been made to the City of Fayetteville, the City of North Little Rock, the Chainwheel bike shop in Little Rock and the Ride bike shop in Conway. Bicycle Silver awards have been made to Garver Engineers, Bike City Recyclery in Fayetteville and the Gearhead bike shop in Jonesboro. A Pro-Bike, Pro Walk national conference for State Bicycle and Pedestrian Coordinators was attended. The Department participated in FHWA Bicycle/Pedestrian Safety webinars and coordinator conference calls. The Bicycle/Pedestrian Coordinator maintained LAB Licensed Safe Cycling Instructor (LCI) status and provided safe cycling instruction to several hundred children and adults, including over 200 children at the annual Bentonville B2 Bicycle Blast event and to National Park staff in Little Rock.

In the Fiscal Year 2011 SPR Work Program, activities associated with the State Scenic Byway Program were included in Job 1711. National Scenic Byway Grants were funded for the project requests from Federal Fiscal Year 2010. The Department participated in meetings and activities with the Mississippi River Parkway Commission and the Talimena Scenic Drive Association. A grassroots group began the process of designating Highway 28 (Highway 71 to Highway 7) a State

scenic byway by providing supporting documentation for locales that meet the criteria for scenic locations – scenic, historic, recreational – and letters of support from elected officials along the route, local business owners and citizens. Information was provided to the Ozark Gateway Heritage group from Batesville to begin the process of developing a State Scenic Byway over multiple routes between Batesville and Mammoth Springs. Presentations were made at several meetings.

### 012057 – SAFE ROUTES TO SCHOOL PROGRAM

Project development activities for the infrastructure projects included preparing task orders for consultants, developing design plans, obtaining right-of-way certification, requesting environmental clearance, preparing bid documents for advertising, verifying completed activities, and paying claims. Activities for education and planning grants include monitoring progress, attending school-sponsored SRTS events, and paying claims. The Arkansas Safe Routes to School Advisory Committee received, reviewed, and made funding recommendations on 34 applications. Recommendations will be sent to the Highway Commission the FHWA for approval.

Seventy-two Safe Routes to School projects for the Federal Fiscal Years of 2007-2009 were monitored; 11 are in project development, seven are under construction, five are under contract, and 43 have been completed since 2007. Six projects were closed by their sponsor prior to implementation.

Year Projects Initiated	Project Development	Under Construction	Under Contract	Complete	Closed by Sponsor
2007	1	3		27	6
2008				13	
2009	10	4	5	3	
Total	11	7	5	43	6

### 001723 - NATIONAL RECREATIONAL TRAILS PROJECT ADMINISTRATION

Fifty-one trail projects for the Federal Fiscal Years of 1998, 2005 and 2007-2009 were monitored; two are in project development, 26 are under contract, and 22 were completed in the past year. One project was closed by its sponsor prior to implementation.

Year Projects Initiated	Project Development	Under Construction	Complete	Closed by Sponsor
1998		1		
2003				
2005			1	
2007		5	7	
2008		6	6	
2009	2	14	8	1
Total	2	26	22	1

### STP ATTRIBUTABLE FUNDING

#### 060630 - CARTS PLANNING STUDY

The 3-C Transportation Planning Process continued with tasks as noted in the CARTS Work Program.

### 061260 - I-630 CORRIDOR FIXED GUIDEWAY ALIGNMENT STUDY

Consultant contract administration by Metroplan continued. Two early public involvement sessions were held. Proposed alignments were identified and additional public involvement sessions were held resulting in a proposed alignment that was refined.

### 061231 - RIVER RAIL AIRPORT STUDY

A supplemental agreement was negotiated and executed that amended the scope of the second phase of the contract at no net change in cost. Alternative alignments were identified and studied with Phase 2 of the study nearing completion at the end of the Fiscal Year with the idenfication of possible system extensions.

### 110273 - WMATS PLANNING STUDY

STP Attributable funds were used for transportation planning in this area for the following Work Elements: Administration, Data Development/Maintenance, Short-Range Planning, Long-Range Planning, Management Systems, and Special Studies.

### **CMAQ FUNDING**

### 110481 - WMATS AIR QUALITY - MPO

Coordination with ADEQ, EPA, and Memphis-Shelby County air quality planning groups continued. The 2033 Long-Range Plan and 2010-2013 TIP were monitored and amended with appropriate conformity determination documentation.

#### 012028 – CARTS OZONE AWARENESS

The use of CMAQ funds in the CARTS area continues the cooperative effort among the MPO, the Department, ADEQ, and other agencies for a continued Awareness and Public Education campaign stressing voluntary actions to reduce seasonal emissions (ridesharing, refueling during the evening, etc.). Public relations, an advertising campaign, and notifications to local media and major employers of potential high ozone days were continued.

### **METROPOLITAN PLANNING BY MPOs**

Accomplishments and information concerning the FTA/FHWA consolidated funding will be provided in the FTA and MPO reports for the following areas:

- Bi-State Metropolitan Planning Organization (BSMPO)
- Central Arkansas Regional Transportation Study (CARTS)
- Hot Springs Area Metropolitan Planning Organization (HSA MPO)
- Jonesboro Area Transportation Study (JATS)
- Northwest Arkansas Regional Transportation Study (NARTS)
- Pine Bluff Area Transportation Study (PBATS)
- Texarkana Urban Transportation Study (TUTS)
- West Memphis-Marion Area Transportation Study (WMATS)

# SUMMARY TABLES APPROVED BUDGET WITH REVISIONS

### **AND**

### FINAL PERFORMANCE AND EXPENDITURE REPORT

SPR 2000(31) PART I – PLANNING

FISCAL YEAR 2011

State Fiscal Year 2011 Part 1 - Planning Approved Budget with Revisions

				Budgeted Amounts	nts		Federal		
doc		Work Program	ogram	Revisions		Revised	Participation	Federal	State
٩ No	Title	(As Approved)	oved)	1*	2*	Total	Rate	SPR	Match
	In-House Planning								
400	Administration & Control		460,000		₩	460,000	\$ %0	'	460,000
401	Field Operations		920,000	↔	20,000 \$	970,000	٠,	776,000	194,000
402	Mapping & Graphics	_	,025,000 \$	(02,000)	₩	000'096	\$ %08	768,000	192,000
403	Data Analysis		620,000 \$	180,000	↔	800,000	\$ %08	640,000	160,000
404	Legislative Review		312,500		↔	312,500	\$ %08	250,000	62,500
405	Modeling and Management Studies	· •	425,000		₩	425,000	\$ %08	•	85,000
406	Performance Measures		24,000		₩.	24,000	\$ %08		4,800
408	Finance	· •	174,000		8	174,000	\$ %08	`	34,800
409	Publications	· •	143,000		8	143,000	٠,		28,600
410	Special Planning Studies		500,000	₩	(25,000) \$	475,000	٠,	(,	95,000
412	Air Quality Activities	₩	82,000		<del>\$</del>	82,000	\$ %08	65,600	16,400
413	Cities Over 50,000 Population	<i>\$</i>	375,000 \$	35,000 \$	10,000 \$	420,000	\$ %08	(,)	
415	Reference Library	\$	16,000		₩	16,000	\$ %08	12,800 \$	3,200
416	Statewide Plan	. ↔	187,500		₩	187,500			(.,
417	Pavement Performance Data Collection	<i>\$</i>	365,000		₩	365,000	\$ %08		
419	Highway Performance Monitoring System	₩	220,000	₩	(30,000) \$	190,000		152,000	
420	Intermodal Transportation Planning	<b>↔</b>		30,000	15,000 \$	295,000		236,000	29,000
421	Automated Traffic Data Collection	3,0	,075,000 \$		(20,000) \$	850,000	\$ %08	\$ 000,089	170,000
422	Highway Condition Inventory & Analysis	· •			15,000 \$	165,000		132,000	
423	Pavement Management System	₩	684,000		↔	684,000		547,200 \$	136,800
425	Contract Turning Movement Counts		142,500		₩	142,500	\$ %08	114,000	28,500
426	Out of State Travel Relative to Transportation Planning		150,000		↔	150,000	\$ %08	120,000 \$	30,000
427	Contract Collection of Traffic Volume Counts	· •	487,000	↔	15,000 \$	502,000	\$ %08	401,600 \$	100,400
428	Multimedia Highway Information System (MMHIS)	<b>↔</b>	250,000		↔	250,000	\$ %08		
429	Contract Collection of Vehicle Classisfication Counts		210,000		↔	210,000	\$ %08	168,000	42,000
430	Railroad Crossing Coordination		240,000		₩	240,000	\$ %08	192,000	48,000
431	Traffic Crash Location	· \$	130,000	↔	15,000 \$	145,000	\$ %08	116,000 \$	29,000
432	Traffic Crash Record Analysis		445,000	↔	(15,000) \$	430,000		344,000 \$	86,000
467	Research Section Projects	\$	500,000		₩	200,000	\$ %08	400,000	100,000
	Total for In-House Planning	\$ 10,	10,567,500 \$	69.	<b>€</b> 3-	10,567,500	<del>69</del>	8,086,000 \$	2,481,500
	Planning by Consultants								
012138		<b>\$</b>	400,000		<del>()</del>	400,000	\$ %08	320,000 \$	80,000
=	C1 Software Implementation Ototomido Lich Spood/Inforcity Decouser Doil Study	6			Đ	000	₩ /0C0	000	400 000
5	Taile for planting the Control of the Samuel of the Control of the			•		300,000	9 ° 00	•	
	l otal for Planning by Consultants	A	\$ 000,000	<del>-</del> 9-	<del>-</del> 3-	900,000	₩.	720,000	180,000
	Totale - Dart   Elinde	4	11 167 500 &	€/ '		11 467 500	€	\$ 000 908 8	2 661 500
	יסומס - רמוני רמונס			9	<del>9</del> .	000,104,11	7	9,900,000	
		=							

\* Revisions 1 & 2 - Adjustments based on anticipated expenditures through the end of the fiscal year.

Final Performance and Expenditure Report SPR 2000 (31) State Fiscal Year 2011 Part 1 - In-House Planning

		1000	L												ľ	
dob		rederal Participation		Wor	Pro	Work Program (Revised)	ised				¥	Actual Costs			0	SPR
No.	Title	Rate	Fe	Federal SPR	Sţ	State Match	Ш	Total	Fec	Federal SPR	Sts	State Match	Tota	al		Funds
	In-House Planning															
400	Administration & Control	%0	8	1	s	460,000	s	460,000	s	•	s	425,273 \$	•	425,273	s	•
401	Field Operations	80%		776,000	s	194,000	8	970,000	s	776,000	s	194,000 \$		970,000	\$	ı
402	Mapping & Graphics	80%	8	768,000	s	192,000	8	960,000	s	574,970	s	143,743 \$		718,713	s	193,030
403	Data Analysis	80%	\$	640,000	s	160,000	s	800,000	s	640,000	s	160,000 \$		800,000	s	1
404	Legislative Review	80%		250,000	\$	62,500	\$	312,500	↔	81,718	\$	20,430 \$		102,148	\$	168,282
405	Modeling and Management															
	Studies	80%	8	340,000	s	85,000	S	425,000	↔	286,411	s	71,603 \$		358,014	<del>S</del>	53,589
406	Performance Measures	80%	\$	19,200	s	4,800	ઝ	24,000	\$	3,227	s	\$ 208		4,034	\$	15,973
408	Finance	80%		139,200	s	34,800	8	174,000	↔	90,820	s	22,705 \$		113,525	s	48,380
409	Publications	80%		114,400	s	28,600	s	143,000	s	47,114	s			58,893	s	67,286
410	Special Planning Studies	80%		380,000	s	95,000		475,000	s	350,855	s		•	438,569	s	29,145
412	Air Quality Activities	80%		65,600	s	16,400		82,000	s	56,514	s			70,642	s	9,086
413	Cities Over 50,000 Population	80%	8	336,000	s	84,000		420,000	s	325,407	s			406,759	s	10,593
415	Reference Library	80%		12,800	s	3,200	s	16,000	s	5,582	s			6,977	s	7,218
416	Statewide Plan	80%		150,000	s	37,500	s	187,500	s	32,342	s			40,427	s	117,658
	Pavement Performance Data															
417	Collection	80%	\$	292,000	s	73,000	ઝ	365,000	ઝ	174,252	s	43,563 \$		217,815	s	117,748
419	Highway Performance Monitoring															
	System	80%	\$	152,000	s	38,000	ઝ	190,000	ઝ	51,358	s	12,840 \$		64,198	s	100,642
420	Intermodal Transportation															
	Planning	80%	\$	236,000	\$	29,000	\$	295,000	↔	232,511	\$	58,128 \$		290,639	\$	3,489
421																
	Automated Traffic Data Collection	80%	8	000'089	s	170,000	s	850,000	↔	647,535	s	161,884 \$		809,419	s	32,465
422	Highway Condition Inventory &															
	Analysis	80%	8	132,000	s	33,000	ઝ	165,000	s	125,322	s	31,331 \$		156,653	s	6,678
423	Pavement Management System	80%		547,200	<del>S</del>	136,800	<del>S</del>	684,000	↔	441,612	<del>S</del>	110,403 \$		552,015	<del>S</del>	105,588
472	Contract Lurning Movement				•		4		,		•			:	•	
9	Counts	80%	<b>↔</b>	114,000	<del>S)</del>	28,500	<del>S)</del>	142,500	₽	100,384	<del>S)</del>	25,096 \$		125,480	<del>S)</del>	13,616
470	Out of State Travel Relative to Transportation Planning	%U8	¥.	120 000	<del>G</del>	30.000	<del>G</del>	150 000	<del>U</del>	92 160	<del>G</del>	23.040		115 200	<del>G</del>	27 840
427	Contract Collection of Traffic	8			<b>)</b>		<b>)</b>		<b>,</b>	Î	<b>)</b>			)	<b>)</b>	)
	Volume Counts	80%	8	401,600	s	100,400	s	502,000	s	390,054	s	97,514 \$	•	487,568	s	11,546
428	Multimedia Highway Information															
	System (MMHIS)	80%		200,000	s	50,000	s	250,000	s	75,335	\$			94,169	8	124,665
429	Contract Collection of Vehicle	80%		168,000	s	42,000	ઝ	210,000	ઝ	148,408	s	37,102 \$		185,510	s	19,592
430	Railroad Crossing Coordination	80%		192,000	s	48,000	ઝ	240,000	ઝ	133,652	s			167,065	s	58,348
431	Traffic Crash Location	80%		116,000	s	29,000	s	145,000	s	110,429	s			138,036	s	5,571
432	Traffic Crash Record Analysis	80%	8	344,000	s	86,000	s	430,000	s	240,035	s	\$ 600,09		300,044	s	103,965
467	Research Section Projects	80%		400,000	s	100,000	s	500,000	s	400,000	s	100,000		500,000	s	•
	Total for In-House Planning		69.	8,086,000	69.	2,481,500	69	10,567,500	69	6,634,007	69.	2,083,778 \$		8,717,785	69	1,451,993

### Final Performance and Expenditure Report F.Y. 2011 Part I - Planning by Consultants

		Federal Partic.	1			SPR		
ob No.	Title	Rate	F	Federal	St	ate Match		Total
deral	Planning Studies (2003) - Consultants Aid Project No.: SPR-3000(3)			4 700 000		404.045	_	0.474.00-
ork Pr	ogram*	80%	\$	1,736,960	\$	434,240	\$	2,171,200
	MACTEC Eng and Consul. Contract Amount for Task Order 1 Costs:		\$	167,114	\$	41,778	\$	208,892
	Prior Periods		\$	131,894	\$	32,973	\$	164,867
	Current Total Costs for Task Order 1		\$	- 131,894	\$	32,973	\$	- 164,867
	Contract Balance		\$	35,220	\$	8,805	\$	44,025
	Contract Amount for Task Order 2 Transfer Funds to Job 001970		\$ \$	143,091 (30,075)	\$	35,773 (7,519)	\$	178,864 (37,594
	Adjusted Contract Amount		\$	113,016	\$	28,254	\$	141,270
	Costs: Prior Periods		\$	70,484	\$	17,621	\$	88,105
	Current Total Costs for Task Order 2		\$	70,484	\$	17,621	\$	88,105
	Contract Balance		\$	42,532	\$	10,633	\$	53,165
	Total Costs for Job 001968  Parsons Brinkerhoff Quade and Douglas		\$	202,378	\$	50,594	\$	252,972
	Contract Amount for Task Order 1  Costs:		\$	129,206	\$	32,302	\$	161,508
	Prior Periods		\$	127,941	\$	31,985	\$	159,926
	Current Total Costs for Task Order 1		\$	127,941	\$	31,985	\$	159,926
	Contract Balance Contract Amount for Task Order 2		\$	1,265 130,141	\$	317 32,535	\$	1,582 162,676
	Costs:		ľ	.00,141	*	02,000	ľ	102,010
	Prior Periods Current		\$ \$	118,135	\$	29,534	\$	147,669
	Total Costs for Task Order 2		\$	118,135	\$	29,534	\$	147,669
	Contract Amount for Task Order 3		\$	12,006	\$	3,001	\$	15,007 375 470
	Contract Amount for Task Order 3  Costs:		\$	300,383	\$	75,096	\$	375,479
	Prior Periods Current		\$ \$	295,017	\$	73,754	\$ \$	368,771
	Total Costs for Task Order 3  Contract Balance		\$	295,017 5,366	\$	73,754 1,342	\$	368,771 <i>6,70</i> 8
	Total Costs for Job 001969		\$	541,093	\$	135,273	\$	676,366
970	Carter and Burgess, Inc. Contract Amount for Task Order 1		\$	346,914	\$	86,728	\$	433,642
	Transferred Funds from Job 001968 Adjusted Contract Amount		\$	30,075 376,989	\$	7,519 94,247	\$	37,594 471,236
			"	510,303	"	o <del>4</del> ,247	Ψ	÷1 1,230
	Costs: Prior Periods		\$	368,144	\$	92,036	\$	460,180
	Current Total Costs for Task Order 1		\$	4,535 372,679	\$	1,134 93,170	\$	5,669 465,849
	Contract Balance		\$	4,310	\$	1,077	\$	5,387
	Total Costs for Job 001970		\$	372,679	\$	93,170	\$	465,849
9/1	Parsons Transp. Group Contract Amount for Task Order 1		\$	376,448	\$	94,112	\$	470,560
	Costs: Prior Periods		\$	376,443	\$	94,111	\$	470,554
	Current Total Costs for Task Order 1		\$ \$	- 376,443	\$	- 94,111	\$ \$	- 470,554
	Contract Balance		\$	5	\$	1	\$	6
	Contract Amount for Task Order 2		\$	147,495	\$	36,874	\$	184,369
	Costs: Prior Periods		\$	147,492	\$	36,872	\$	184,364
	Current Total Costs for Task Order 2		\$ \$	- 147,492	\$ \$	36,872	\$	- 184,364
	Contract Balance		\$	3	\$	2	\$	5
	Total Costs for Job 001971	ntroote	\$	523,935	\$	130,983	\$	654,918
	y - All General Planning Study (2003) Co Contract Amount	ntracts	\$	1,740,792	\$	435,198	\$	2,175,990
	Costs: Prior Periods		\$	1,635,550	\$	408,886	\$	2,044,436
	Current Total Costs - All		\$	4,535 1,640,085	\$ \$	1,134 410,020	\$	5,669 2,050,105
	Total Contract Balances		\$	100,707	\$	25,178	\$	125,885
ance	- Programmed Funds		\$	96,875	\$	24,220	\$	121,095